

REMARKS

Claims 2-11 and 13-40 are pending in this application, of which claims 8-9, 15-16, 18-28, 32-35 and 38-40 have been allowed. No new matter has been added.

Claim Rejections under 35 U.S.C. '112

Claims 2-7, 10-11, 13-14, 17, 29-31 and 36-37 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Specifically, the Examiner asserts that the newly added phrase “overlapping detecting unit further detects an overlapping position based on a character recognition result of a low graphics ratio region in a first document” does not have support in the specification. Further, the Examiner asserts that the term “a low graphics ratio region” is not defined and therefore can be interpreted broadly.

Claims 2, 3, 13, 14, 17, 29, 26 and 37 have been amended to indicate that the low graphic ratio region is “a region of a plurality of regions that hold more line images found to contain only character images”. With this amendment, Applicant believes that the recently added phrase the “overlapping detecting unit further detects an overlapping position based on a character recognition result of a low graphics ratio region in a first document” finds support on page 15, lines 10-19 and page 18, lines 6-20 of the specification.

Therefore, withdrawal of the rejection of claims 2-7, 10-11, 13-14, 17, 29-31 and 36-37 under 35 U.S.C. §112, first paragraph, is respectfully requested.

Claim Rejections under 35 U.S.C. §103

Claims 2-7, 10-11, 13-14, 17, 29-31 and 36-37 stand rejected under 35 U.S.C. ' 103(a) as being unpatentable over the combination of U.S. patent 5,675,672 to Nakabayashi and Japanese Patent Publication 10-69536 to Nakamura et al. (hereinafter "Nakamura").

The present invention is a document processing device in which a large document may be partitioned into a number of regions which are scanned in separately. An overlapping detecting unit detects overlapping sections of the document images by comparing positions and sizes of character regions in the document images. As indicated in the preferred embodiment the present invention can detect the overlapping position between documents, including graphics more accurately by specifying regions containing a lot of line images as low graphic-ratio regions and making a comparison between character regions of the line images in the respective regions.

Nakabayashi describes a two-dimensional linker that is able to take a document (32) that is partitioned and scanned by a first scan (28) and a second scan (30). An optical character reader (12) is able to recognize the ASCII characters in the two documents and saves each into a first memory (14) and a second memory (16). An aligner (20) identifies the duplicate characters in each document and eliminates the duplicates from one of the documents. A linking means then takes the two documents and forms a single documents stored in a third memory (26). As illustrated in figure 4, the aligner (20) searches for duplicated phrases. In addition, as illustrated in figure 5, the aligner (20) may search for duplicated columns of characters.

The English language abstract of Nakamura et al. describes an image synthesizer in which a rectangle of information is extracted from the image. A rectangle information operating part (6) positions images to be synthesized is found by using information such as size, relative position and aspect ratio of the rectangle.

Applicant believes that independent claims 2, 3, 13, 14, 17, 29, 36 and 37 overcome the teachings of Nakabayashi and Nakamura et al. The prior art of record fails to describe “the overlapping detecting unit further detects an overlapping position based on a character recognition result of a low graphics ratio region in a first document of the plurality of document images, and a character recognition result of a corresponding region in a second document of the plurality of document images” as recited in the independent claims. Therefore, withdrawal of the rejection Claims 2-7, 10-11, 13-14, 17, 29-31 and 36-37 under 35 U.S.C. §103(a) as being unpatentable over the combination of U.S. patent 5,675,672 to Nakabayashi and Japanese Patent Publication 10-69536 to Nakamura et al. is respectfully requested.

Conclusion

In view of the aforementioned amendments and accompanying remarks, claims 2-11 and 13-40, as amended, are now patentable and in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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